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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,520	12/22/2000	Ernst Wellisch	WELLISCH	1684

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EXAMINER

CUEVAS, PEDRO J

ART UNIT PAPER NUMBER

2834

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,520

Applicant(s)

WELLISCH, ERNST

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 20 March 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Sheet-Layered Lamination Stack Slotted Rotor For Electric Motor.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "a geometric shape" in claims 1 & 6 is a relative term which renders the claim indefinite. The term "a geometric shape" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The actual "geometric shape" of the laminations must be properly described or specified in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1 & 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,662,200 to Rank et al.

Rank et al. clearly teaches the construction of an electric motor (10) including a stator (26) and a rotor (12) which defines a rotor axis and includes at least a stack of laminations layered by sheets (58, 60) and provided with slots (34) for receiving rotor windings, wherein at an end face of the at least one stack of laminations, there is provided at least one rotor end sheet (58 or 60) which is made of high-strength fine-grain structural steel and exhibits, at least in proximity of the rotor axis, a geometric shape of the sheets layered in the stack of laminations.

7. With regards to claim 6, Rank et al. also discloses an electric motor (10), comprising:

a stator (26); and

a rotor (12) defined by a rotor axis and having a stack (30) of laminations which is layered by sheets (58, 60), said stack of laminations having opposite end faces, and two rotor end sheets, one of the rotor end sheets (58) provided on one of the end faces of the stack of laminations, and the other one of the rotor end sheets (60) provided on the other one of the end faces of the stack of laminations, each of said rotor end sheets being made of high-strength fine-grain structural steel and exhibiting, at least in proximity of the rotor axis, a geometric shape of the sheets layered in the stack of laminations.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 3, 7 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,662,200 to Rank et al. in view of U.S. Patent No. 3,590,208 to Martini et al.

Rank et al. discloses an electric motor (10) as described above.

However, it fails to disclose an electric motor, wherein:

the rotor end sheet is provided with slots for receiving the rotor windings, said slots of the rotor end sheet being closed, or at least some of the slots of the rotor end sheet having leakage orifices.

Martini et al. teaches an electric motor, wherein:

the slots for receiving the rotor windings, are closed (Figure 2), or at least some of the slots have leakage orifices (Figure 4) for the purpose of finding a method, which will adapt the projection welding process to the manufacture of a stack of laminations with inclined slots.

It would have been obvious to one skilled in the art at the time the invention was made to use the open or closed slot configuration disclosed by Martini et al. on the rotor end sheets disclosed by Rank et al. for the purpose of finding a method, which will adapt the projection welding process to the manufacture of a stack of laminations with inclined slots.

10. Claims 4,5 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,662,200 to Rank et al. in view of U.S. Patent No. 3,590,208 to Martini et al. as applied to claims 2, 3, 7 & 8 above, and further in view of common knowledge in the art.

Rank et al. in view of Martini et al. discloses the claimed invention except for the electric motor (10) being a high-speed, heavy-duty asynchronous motor. It would have been an obvious matter of design choice to select the appropriate materials to make the electric motor (10) a high-

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speed capable, heavy-duty classified asynchronous motor since the applicant has not disclosed that motor speed capability and heavy-duty classification solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well without these two material determined characteristics.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
January 22, 2002


